Water Quality Committee Meeting
TB1 Update
July 2025

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of new york, p.c.

an affiliate of Geosyntec Consultants

2019 Design Outdated Surrounding Conditions

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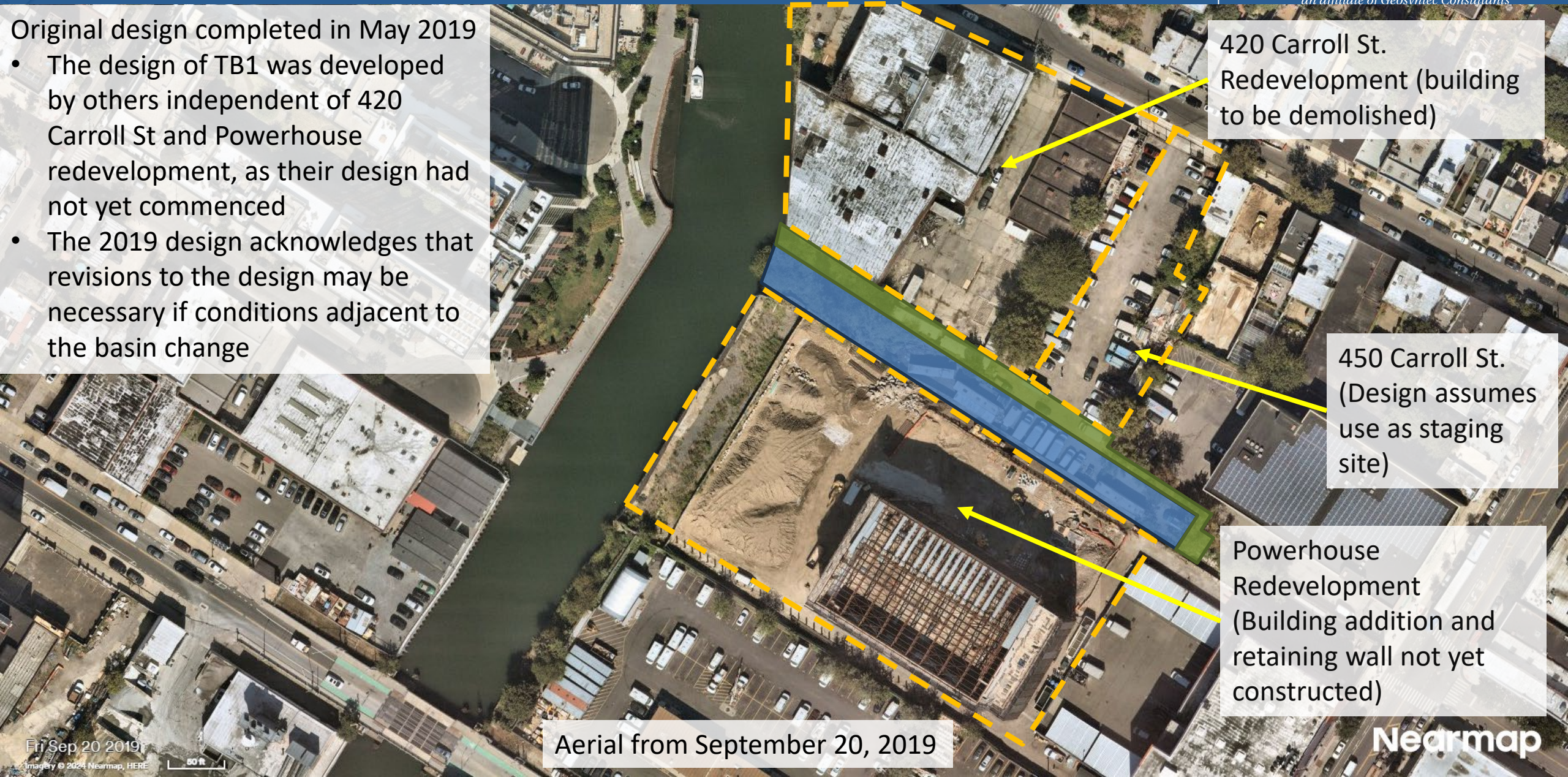
Original design completed in May 2019

- The design of TB1 was developed by others independent of 420 Carroll St and Powerhouse redevelopment, as their design had not yet commenced
- The 2019 design acknowledges that revisions to the design may be necessary if conditions adjacent to the basin change



Aerial from September 20, 2019

Current Conditions Surrounding TB1

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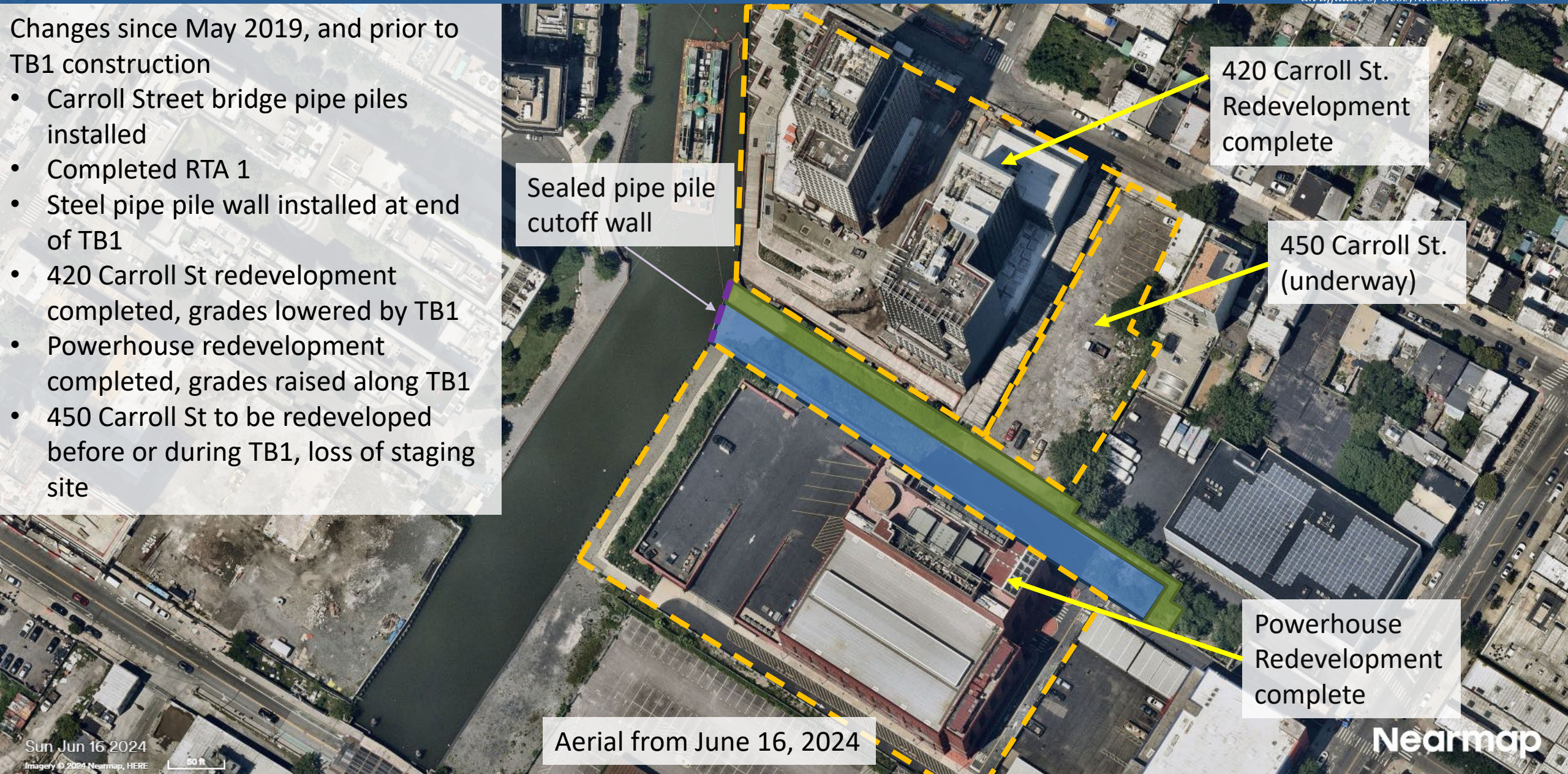
Changes since May 2019, and prior to TB1 construction

- Carroll Street bridge pipe piles installed
- Completed RTA 1
- Steel pipe pile wall installed at end of TB1
- 420 Carroll St redevelopment completed, grades lowered by TB1
- Powerhouse redevelopment completed, grades raised along TB1
- 450 Carroll St to be redeveloped before or during TB1, loss of staging site



Aerial from June 16, 2024

Key Takeaway

- A redesign of the 2019 design was required due to changes in the surrounding conditions and the resulting constructability challenges
- The need for a redesign presents an opportunity to provide access to water for recreational use, support diverse and resilient wetland habitat, and incorporate community interests into the new design

Gowanus Lowlands Master Plan

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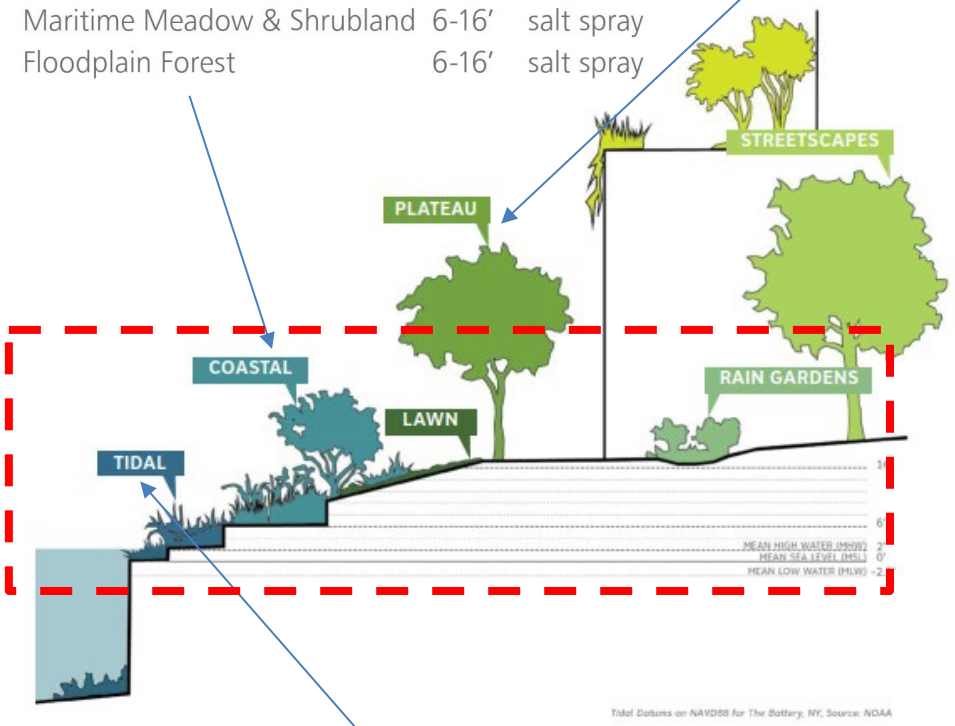
WATERFRONT → UPLAND

- Plaza Grove/Esplanade Allee: 16'+, plaza with shaded program area
- Forest: 16'+, larger shaded program area

- Maritime Meadow & Shrubland 6-16' salt spray
- Floodplain Forest 6-16' salt spray



- Marine/Submerged <0' submerged
- Low Salt Marsh 0-2' daily inundation
- High Salt Marsh 2-6' seasonal inundation

Rendering of potential 1st St Turning Basin Restoration, Chris Anderson, SUNY ESF MLA Capstone 2017

TB1 Concept Rendering – Details

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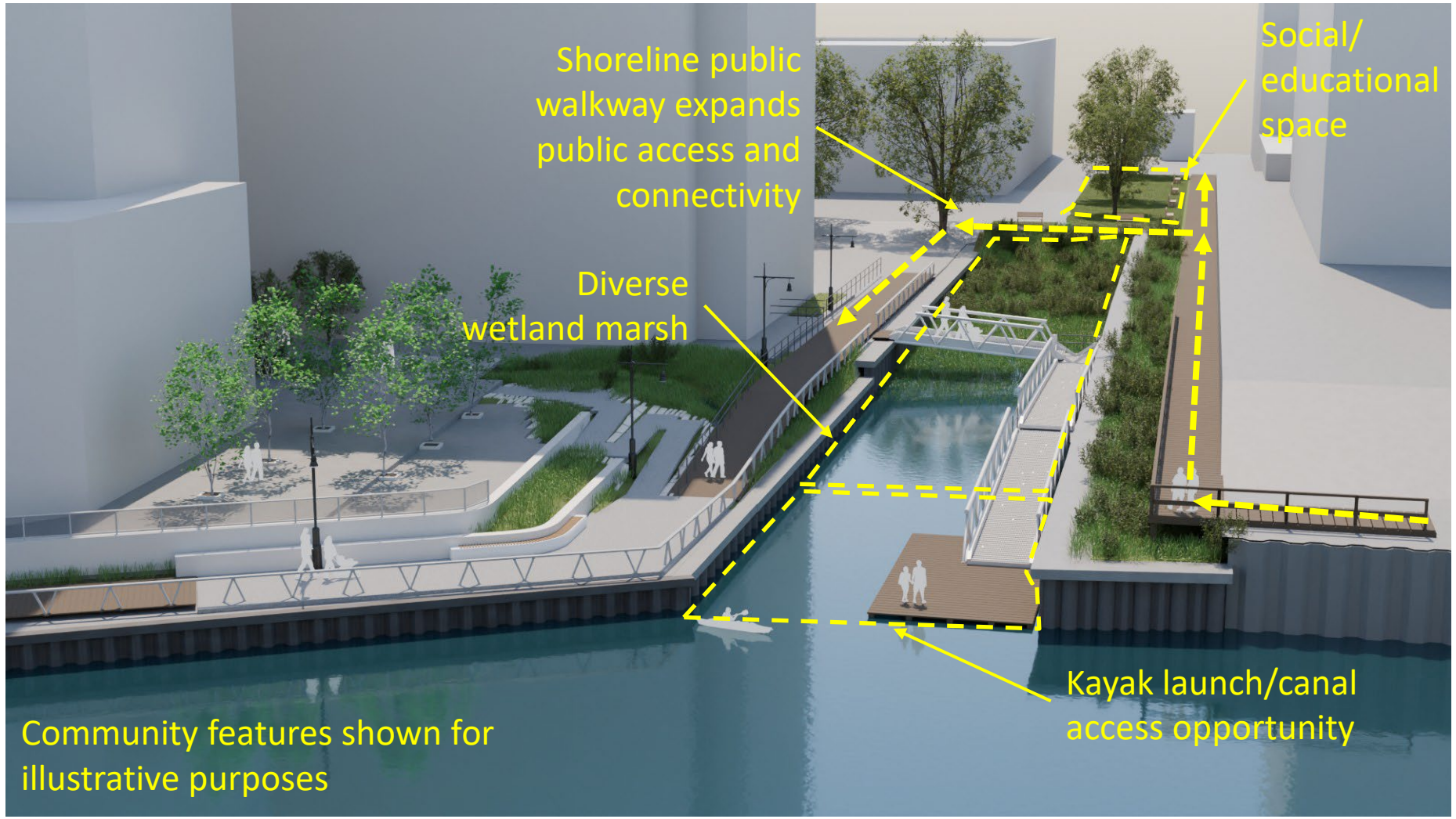

Conceptual Design Overview

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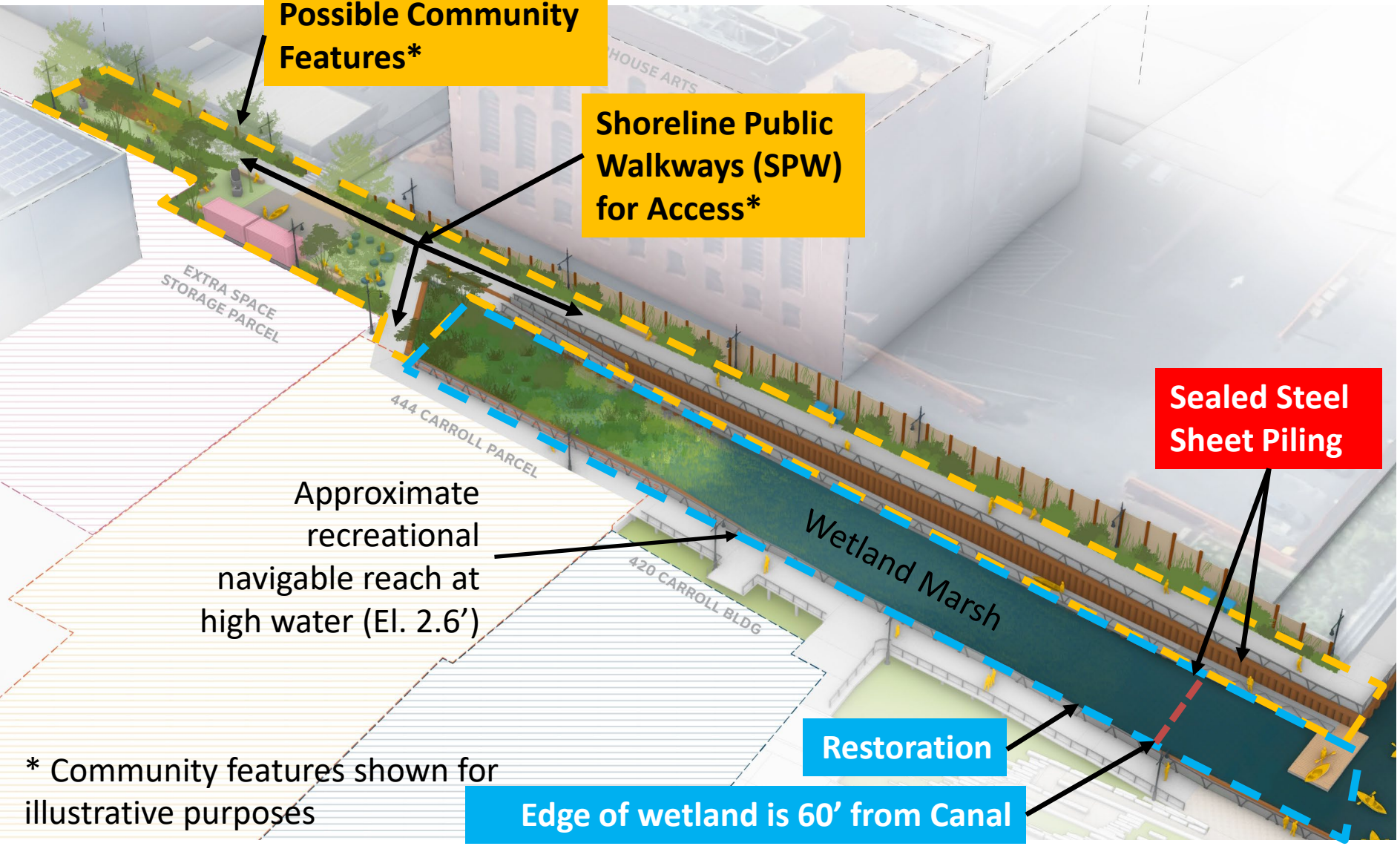

- **Remedy:**
  - Encapsulation
  - Steel sheet pile wall
  - Cap system
- **Restoration:**
  - Wetland
- **Possible Community Features**
  - Shoreline Public Walkway (SPW)
  - Marine Access
  - Social Gathering Space

Wetland Sizing and Grading

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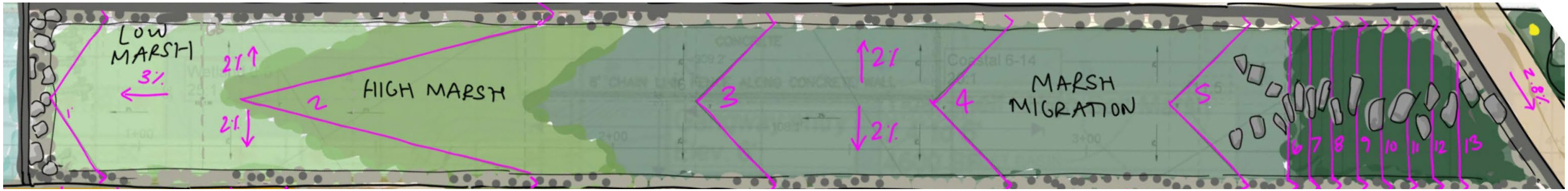
- Wetland grading kept between 50:1 to 30:1 to promote establishment under current WL conditions
- Each zone minimum 30’ in any dimension

TIDAL WETLAND GUIDELINES	MIN	MAX
LOW MARSH ELEVATION (daily inundation)	Mean	MHW
HIGH MARSH ELEVATION (seasonal inundation)	MHW	MHHW
MARSH MIGRATION	MHHW	MHHW+4’



Comparison Table

Feature	2019 Design	2025 Design
Constructability	Cannot be constructed as designed	Designed to be constructable with limited risks
Construction Schedule	3 to 4 years	1.5 years
Environmentally Protective	Yes	Yes
Kayak Accessibility	Yes	Yes
Wetland Area	7,700 sqft Narrow wetland shelf	7,900 sqft Diverse wetland habitat
Wetland Resilience	Limited	Yes
Potential Marine Access	No	Yes
Potential Public Access	No	Yes
Potential Community Park	No	Yes

Benefits of the TB1 Alternative

- Reduces project risk (constructability, schedule, safety)
- Reduces construction schedule
- Features
  - Uninterrupted canal access via shoreline walkway
  - Diverse ecological habitat
  - More integrated landscape with surrounding properties
  - Potential kayak launch access point
  - Potential communal/education space